



Toxics Release Inventory Update Arizona Mexico Border Reporting Years 2006-2008

December 2009

U.S. EPA Region 9: California, Arizona, Nevada, Hawaii, the Pacific Islands, and Tribal Nations

The EPA made public the 2008 data on toxic chemicals that were released to the air, water, and land of Arizona's Border Region.* This report provides data from the Toxics Release Inventory (TRI) for the facilities in Arizona that are located within 100 kilometers (using 70 zip code areas) of the U.S./Mexico Border.

What is a Release?

A TRI "release" is defined as the amount of a toxic chemical released on-site (to air, water, underground injection, landfills, and other land disposal), and the amount transferred off-site for disposal.

Releases and Health Effects

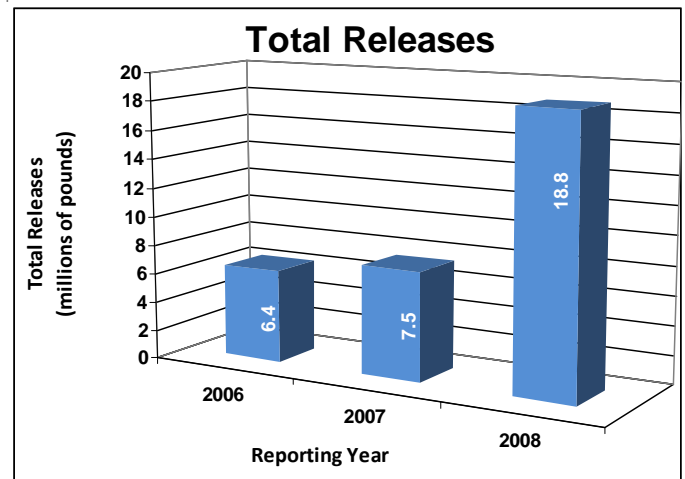
It is important to note that releases should not be directly equated with risk. To evaluate risk, release data must be combined with information about chemical toxicity, site-specific conditions, and exposure. In addition, this data does not indicate whether or not a facility is violating environmental laws. Many of the substances reported through this program are subject to state and federal regulations designed to protect human health and the environment.

Who is Reporting?

A facility is subject to TRI reporting requirements if it has 10 or more full-time employee equivalents (20,000 work hours per year); is classified under a reportable North American Industrial Classification System (NAICS) Code; and manufactures, processes, or otherwise uses any of the TRI chemicals in amounts above established threshold amounts. For most chemicals the thresholds are 25,000 pounds for "manufactured" or "processed," and 10,000 pounds for "otherwise used."

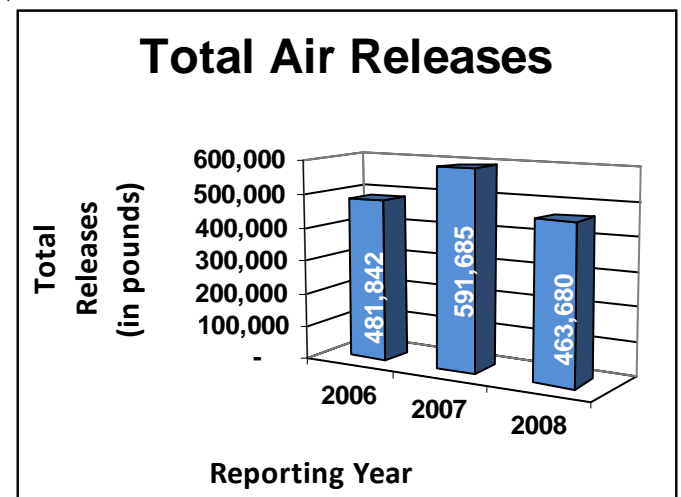
Chemical Releases

Total (on-site and off-site) TRI chemical releases reported in the Arizona Mexico Border Region during the past three years are displayed in the chart below:**



In 2008, reported releases in the Border area of Arizona (18.8 million pounds) accounted for about 20% of the State's 95.2 million pounds of releases.

Total reported air releases in Border area of Arizona during the past three years are as follows:



*No adjustments were made to account for double counting that could occur as a result of off-site transfers of some TRI facilities also being reported as on-site releases at permitted hazardous waste landfills and other TRI facilities that receive the on-site transfers.

**Year to year data comparisons do not reflect changes in reporting requirements.

Trends in Releases

In 2008, 38 facilities in the Border area of Arizona reported releases of approximately 18.8 million pounds of toxic chemicals to the TRI Program. The following chart tracks releases to the environment for reporting years 2006 through 2008.

Total Releases for Reporting Years 2006 – 2008					
Year	Air	Water	On-Site Land	Underground Injection	Off-Site
2006	481,842	507	5,759,122	-	199,236
2007	591,685	2,877	6,744,058	-	127,870
2008	463,680	250	18,296,913	-	8,443

Largest Releases by Industry Type

In 2008, two industries – Copper and Nickel Mining and Fossil Fuel Electricity Generation – account for 99% of the total 18.8 million pounds of reported releases in the Border area of Arizona.

Industry	Total Release (pounds)	Percentage of Total Releases
Copper Ore and Nickel Ore Mining	17,803,283	95%
Fossil Fuel Electric Power Generation	661,887	4%

Largest Releases by Chemical Type

The top five chemicals released in the Border area of Arizona in 2008, ranked by total on-site and off-site releases, are as follows:

Chemical Name	Total Release (pounds)	Percentage of Total Releases
Copper Compounds	13,025,651	69%
Lead & Lead Compounds	3,473,768	19%
Chromium Compounds	427,549	2%
Barium Compounds	337,460	2%
Manganese	327,002	2%

Facilities Releasing Largest Quantities of Chemicals

Ten facilities, listed in descending order, released the largest total on-site and off-site releases in the Border area of Arizona:

	Facility Name	City Name	Total Releases (pounds)
1	Cyprus Tohono Corp.	Casa Grande	13,394,256 (98% copper compounds releases)
2	Freeport-McMoran Sierrita Inc.	Green Valley	2,394,534 (59% lead compounds releases)
3	Asarco LLC Mission Complex	Sahuarita	2,006,429 (81% lead compounds releases)
4	Arizona Electric Power Cooperative Inc.	Cochise	602,535 (56% barium compounds releases)
5	Apache Nitrogen Products Inc.	Benson	94,629 (39% ammonia, 39% nitric acid releases)
6	US Marine Corps Barry M Goldwater Range Complex	Yuma	67,750 (71% copper releases)
7	Irrington Generating Station	Tucson	59,352 (96% hydrogen fluoride releases)
8	Learjet Inc.	Tucson	58,342 (50% ethylbenzene, 50% naphthalene releases)
9	U.S. Army Yuma Proving Ground	Yuma	20,517 (63% copper releases)
10	Southwest Fiberglass LLC	Tucson	15,196 (100% styrene releases)

On-line Access

For national information on data releases, see:
<http://www.epa.gov/tri>

The TRI data is available through Envirofacts Warehouse, EPA's internet site for distributing environmental information at:
<http://www.epa.gov/enviro>

Or the TRI Explorer tool:
<http://www.epa.gov/triexplorer>

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